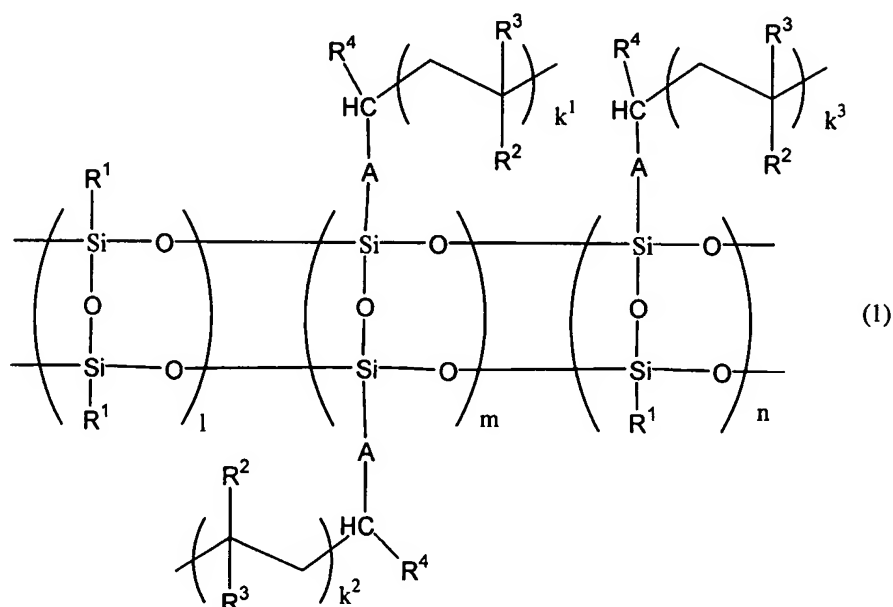


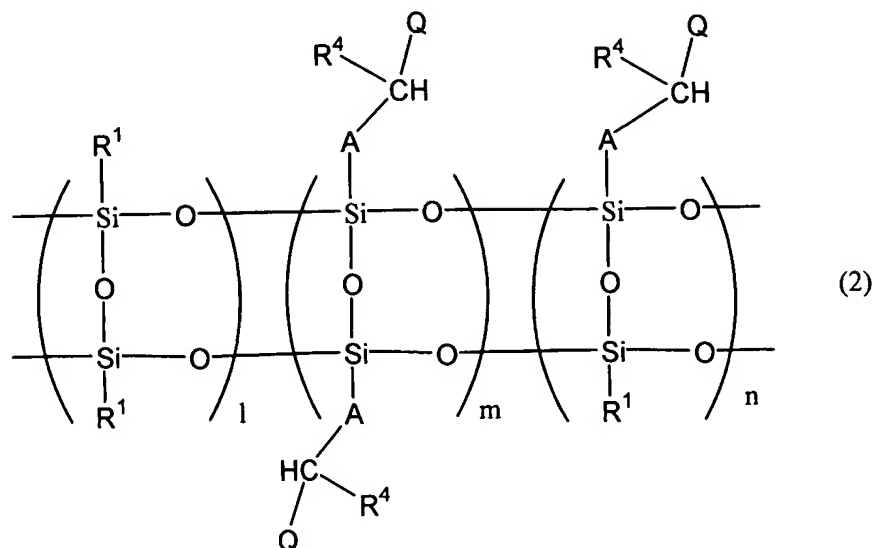
AMENDMENTS TO THE CLAIMS

1. (Original) A process for producing a polysilsesquioxane graft polymer including a repeating unit shown by the following formula (1) in the molecule,



wherein A represents a linking group, R^1 represents a hydrocarbon group which may have a substituent, R^2 represents a hydrogen atom or an alkyl group having 1 to 18 carbon atoms, R^3 represents a polar group or an aryl group which may have a substituent, R^4 represents a hydrogen atom, an alkyl group having 1 to 6 carbon atoms, an ester group, or an acyl group, k^1 , k^2 , and k^3 individually represent arbitrary positive integers, provided that, when k^1 , k^2 , and k^3 respectively represent two or more, the groups shown by the formula: $-\text{CH}_2-\text{C}(\text{R}^2)(\text{R}^3)-$ may be the same or different, and l, m, and n individually represent zero or an arbitrary positive integer, provided that the case where “ $m=n=0$ ” is excluded, the process comprising applying ionizing radiation or

heat to a mixture including a polysilsesquioxane compound including a repeating unit shown by the following formula (2),



wherein A, R¹, R⁴, l, m, and n have the same meanings as defined above, and Q represents an iniferter group, and a vinyl compound shown by the following formula (3): CH₂=C(R²)-R³ (wherein R² and R³ have the same meanings as defined above).

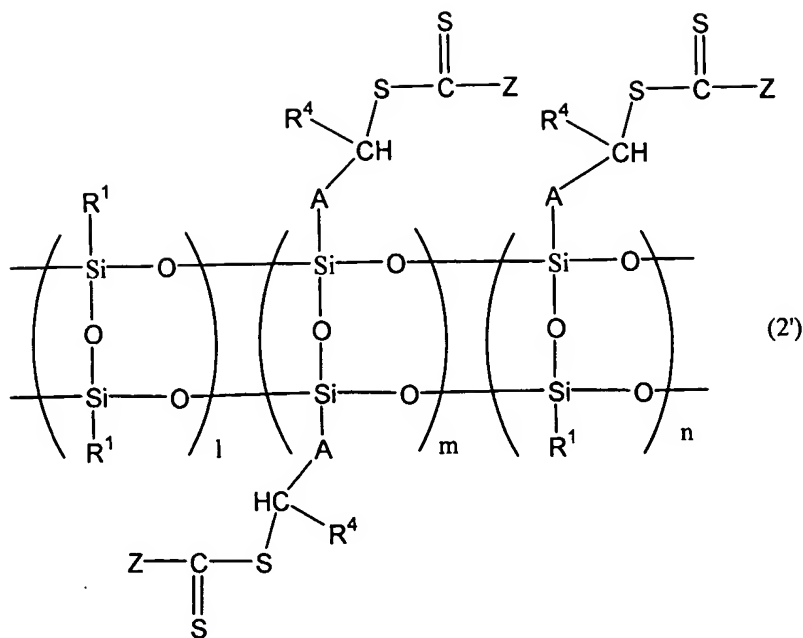
2. (Original) The process for producing a polysilsesquioxane graft polymer according to claim 1, wherein ionizing radiation is applied to a mixture including the polysilsesquioxane compound including the repeating unit shown by the formula (2) in which Q is a photoiniferter group shown by the following formula: -S-C(=S)-Z (wherein Z represents a hydrocarbon group which may have a substituent, an alkoxy group, an aryloxy group which may have a substituent, an amino group which may have a substituent, or a phenyl group which may have a substituent)

and the vinyl compound shown by the formula (3): $\text{CH}_2=\text{C}(\text{R}^2)\text{-R}^3$ (wherein R^2 and R^3 have the same meanings as defined above).

3. (Original) The process for producing a polysilsesquioxane graft polymer according to claim 1 or 2, comprising:

condensing an alkoxysilane compound shown by the following formula (4): $[\text{XCH}(\text{R}^4)\text{A}]\text{Si}(\text{OR}^5)_3$ (wherein A and R^4 have the same meanings as defined above, X represents a halogen atom, and R^5 represents an alkyl group having 1 to 6 carbon atoms) and an alkoxysilane compound shown by the following formula (5): $\text{R}^1\text{Si}(\text{OR}^6)_3$ (wherein R^1 has the same meaning as defined above, and R^6 represents an alkyl group having 1 to 6 carbon atoms) in an amount of 0 to 100 parts by weight for 1 part by weight of the alkoxysilane compound shown by the formula (4) in the presence of an acid catalyst or a base catalyst;

reacting the resulting polycondensation product with a compound shown by the following formula (6): $\text{M}[\text{SC}(=\text{S})\text{-Z}]_a$ (wherein Z has the same meaning as defined above, M represents an alkali metal atom, an alkaline earth metal atom, or a transition metal atom, and a represents the valence of M) to obtain a polysilsesquioxane compound including a repeating unit shown by the following formula (2') in the molecule,

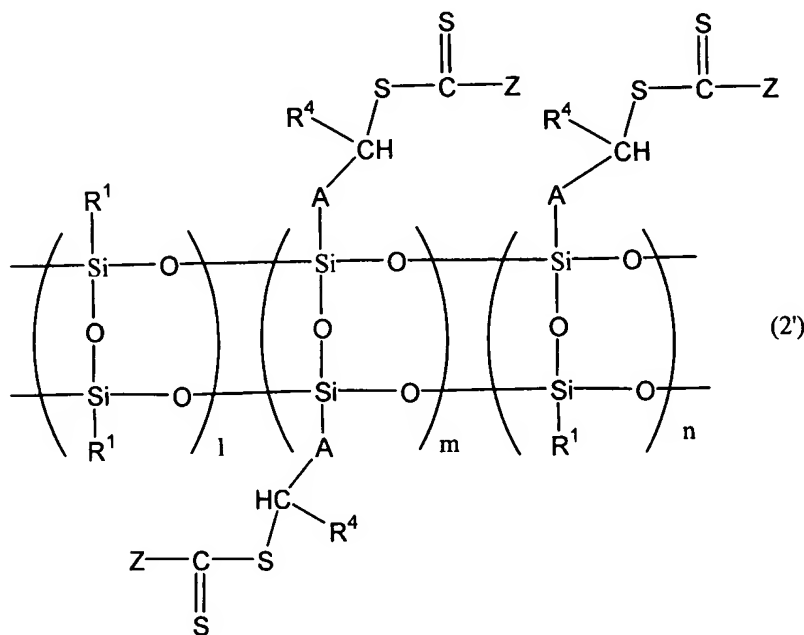


wherein A represents a linking group, R^1 represents a hydrocarbon group which may have a substituent, R^4 represents a hydrogen atom, an alkyl group having 1 to 6 carbon atoms, an ester group, or an acyl group, l, m, and n individually represent zero or an arbitrary positive integer, provided that the case where “ $m=n=0$ ” is excluded, and Z represents a hydrocarbon group which may have a substituent, an alkoxy group, an aryloxy group which may have a substituent, an amino group which may have a substituent, or a phenyl group which may have a substituent; and

applying ionizing radiation to a mixture including the resulting polysilsesquioxane compound and the vinyl compound shown by the formula (3): $CH_2=C(R^2)-R^3$ (wherein R^2 and R^3 have the same meanings as defined above).

4. (Currently amended) The process for producing a polysilsesquioxane graft polymer according to ~~any of claims 1 to 3~~ claim 1, wherein the polysilsesquioxane graft polymer has a number average molecular weight of 2,500 to 1,000,000.

5. (Original) A polysilsesquioxane compound comprising a repeating unit shown by the following formula (2'),



wherein A represents a linking group, R^1 represents a hydrocarbon group which may have a substituent, R^4 represents a hydrogen atom, an alkyl group having 1 to 6 carbon atoms, an ester group, or an acyl group, l, m, and n individually represent zero or an arbitrary positive integer, provided that the case where “ $m=n=0$ ” is excluded, and Z represents a hydrocarbon group which

may have a substituent, an alkoxy group, an aryloxy group which may have a substituent, an amino group which may have a substituent, or a phenyl group which may have a substituent.

6. (Currently amended) A pressure-sensitive adhesive comprising a polysilsesquioxane graft polymer obtained by the process according to ~~any of claims 1 to 4~~ claim 1.

7. (Original) A pressure-sensitive adhesive sheet comprising a substrate sheet, and a pressure-sensitive adhesive layer formed on the substrate sheet and including the pressure-sensitive adhesive according to claim 6.